

Eng-M 8-1271

Chief, Telecommunications Training and  
Techniques Staff, CC

5 December 1958

Chief, Engineering Staff, CC

Equipment

1. A study was conducted to determine whether a 40KW amplifier, as compared to the modified 231-D20 10KW transmitter, will offer a marked increase in circuit reliability over the path.

2. From propagation prediction curves the circuit reliability was determined. The circuit data for this path is as follows:

Type of Service	Poor
Type of Ground	10KW (231-D) and 40KW
Transmitter Power	"A" Rhombic
Transmitting Antenna	"A" Rhombics dual diversity
Receiving Antennas	2.5 (Nov., Dec., Jan.)
Noise Grade	3.0 (May, June, July)

The attachment indicates the number of hours per day when communications is possible for extremes in sunspot numbers.

3. The cost of a 40KW linear amplifier plus an exciter modified for operation is about \$70,000. We will appreciate your opinion as to whether your operation requires the increased transmission time provided by the 40KW amplifier in light of the extra cost involved.

Attachment:

Chart showing path between

Distribution:

Orig. & 1 - Addressee, w/attach.  
1 - SDS, w/attach.  
1 - SDS, (chrono), w/attach.  
1 - OC-E (chrono), w/attach.  
1 - R&D/EP, w/attach.

Origination:

OC-E/SEB/SDS

(4 Dec. 1958)

CONFIDENTIAL

Path Between



25X1

November, December, January

SSN	0	10KW	6 1/2 hours
SSN	0	40KW	7 1/2 hours
SSN	120	10KW	18 3/4 hours
SSN	120	40KW	22 1/4 hours

May, June, July

SSN	0	10KW	13 1/4 hours
SSN	0	40KW	15 3/4 hours
SSN	120	10KW	19 3/4 hours
SSN	120	40KW	22 1/4 hours

CONFIDENTIAL